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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO |
|--------------------------------|-------------|----------------------|-------------------------|-----------------|
| 10/656,300 | 09/04/2003 | Yeong-Shyung Chou | 13158-E CIP | 8201 |
| 29171 75 | 08/03/2006 | | EXAMINER | |
| BATTELLE MEMORIAL INSTITUTE | | | ALEJANDRO, RAYMOND | |
| ATTN: IP SER' P. O. BOX 999 | • | | ART UNIT PAPER NUMBER | |
| RICHLAND, V | WA 99352 | | 1745 | |
| | | | DATE MAILED: 08/03/2006 | 5 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | | |
|--|--|---|--------|--|--|--|--|
| Office Action Commence | 10/656,300 | CHOU ET AL. | | | | | |
| Office Action Summary | Examiner | Art Unit | | | | | |
| | Raymond Alejandro | 1745 | | | | | |
| The MAILING DATE of this communication ap Period for Reply | opears on the cover sheet w | ith the correspondence ac | ldress | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPI WHICHEVER IS LONGER, FROM THE MAILING [- Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the maili earned patent term adjustment. See 37 CFR 1.704(b). | DATE OF THIS COMMUNI .136(a). In no event, however, may a d will apply and will expire SIX (6) MO tte. cause the application to become A | CATION. reply be timely filed NTHS from the mailing date of this c BANDONED (35 U.S.C. \$ 133) | | | | | |
| Status | | | | | | | |
| 1)⊠ Responsive to communication(s) filed on 17. | July 2006 | | | | | | |
| | is action is non-final. | | | | | | |
| | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | | |
| | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| | Ex parto Quayro, 1000 O.L | 5. 11, 400 O.G. 210. | | | | | |
| Disposition of Claims | | | | | | | |
| · | ☑ Claim(s) <u>1-68</u> is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) <u>1-9 and 19-68</u> is/are withdrawn from consideration. | | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | | |
| 6)⊠ Claim(s) <u>10-18</u> is/are rejected. | | | | | | | |
| 7) Claim(s) is/are objected to. | Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/ | or election requirement. | | | | | | |
| Application Papers | | | | | | | |
| 9)⊠ The specification is objected to by the Examin | ner. | | | | | | |
| 10)⊠ The drawing(s) filed on <u>04 September 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner. | | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | | |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | | |
| • | on and and the consider OF LLOO | 0.440(.) (.)(0. | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | | | |
| a) All b) Some * c) None of: | | | | | | | |
| | 1. Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | | | |
| application from the International Burea | | | | | | | |
| * See the attached detailed Office action for a lis | it of the certified copies not | received. | | | | | |
| | | | | | | | |
| AMA-A | | | | | | | |
| Attachment(s) | [| _ | | | | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4) Li Interview : | Summary (PTO-413) s)/Mail Date | | | | | |
| 3) X Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 | | nformal Patent Application (PTC | D-152) | | | | |
| Paper No(s)/Mail Date <u>09/17/04</u> . 6) ☐ Other: | | | | | | | |

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DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group II and Species 3 in the reply filed on 07/17/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). It is noted that applicant only traversed "the alleged ground made by the Examiner that "no claim appears to be generic". However, applicant did not point out any supposed errors, if applicable, in the restriction requirement.

Priority

2. This application is a C-I-P Application No. 10/134072, filed 04/26/02.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 09/17/04 was considered by the examiner.

Drawings

4. The drawings were received on 09/04/03. These drawings are acceptable.

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Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title of the present application does appear to have been incorrectly labeled in the response of 07/17/06.

- 6. The disclosure is objected to because of the following informalities: the current status (whether abandoned; or patented and its patent #; or published and its publication #) of the parent application or any non-provisional patent application referenced in the specification should be updated. Appropriate correction is required. For example, refer to paragraphs 0002 and 0008.
- 7. The use of the trademark "Phlogopite", "Muscovite", "Biotite", "Fuchsite", "Lepidolite", "Zinnwaldite" has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

8. Claims 10 and 12 are objected to because of the following informalities: all <u>parenthesis</u> should be deleted or removed, and the limitation recited therein (i.e. "(gasket)") should be positively claimed, if applicant intends to do so, so as to have a better understanding of the claims. Appropriate correction is required.

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Claim Rejections - 35 USC § 112

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9. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 10. Claims 12 and 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 11. Claim 12 contains the trademark/trade name Phlogopite", "Muscovite", "Biotite", "Fuchsite", "Lepidolite", "Zinnwaldite". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a sealing material and, accordingly, the identification/description is indefinite.
- 12. Claims 17-18 contain the trademark/trade name "G-18 glass". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves.

Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a glass forming material and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by the UK patent Application GB 2312479 (heretofore "the GB'479").

The present application is directed to a multilayer seal wherein the disclosed inventive concept comprises the specific sealing components.

As to claims 10-11:

The GB'479 discloses a gasket for sealing between two substantially planar faces, the gasket comprising an outer metal containment member of at least one turn of a metal strip; a sealing portion of a softer filler material lying radially inwardly of the containment member and including at least two turns of said filler material; and an inner containment member of at least one turn of a metal strip (CLAIM 1/ABSTRACT). The filler material of the sealing portion is

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made of at least mica (CLAIM 6/ Page 3, 3rd full paragraph). It is noted that given that the sealing portion is in direct contact with both the outer member and the inner member, the spaces adjacent thereto are effectively sealed by the outer and inner members which are made of at least a melt-forming material. Additionally, given that the sealing portion is made of at least silica, such a gasket for sealing is capable of achieving the specifically claimed leak rates. Thus, that is an inherent property or characteristic thereof because product of identical chemical composition cannot have mutually exclusive properties.

As to claim 12:

Disclosed is the use of a mica paper (CLAIM 6/ Page 3, 3rd full paragraph).

As to claim 13:

Said outer and inner members are made of a metal strip (CLAIMS1-2/ABSTRACT).

Therefore, the present claims are anticipated.

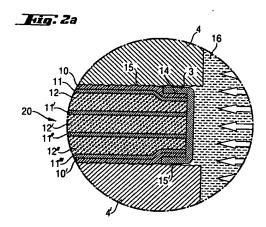
15. Claims 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ottinger et al 6565099.

As to claims 10-11:

Figure 2 of Ottinger et al illustrate a gasket body 20 being a multi-layer body including a covering 10 that is made of polymer foil and is joined to one side of a metal foil 11, which other side is joined to an outer side of a graphite foil 12, and the latter is again joined on an inner side t a metal foil 11. A central layer of the gasket 20 is formed of a graphite foil 12', having one flat surface that is joined to the metal foil 11' and another flat surface which is joined to one flat surface of a metal foil 11" (COL 7, lines 10-20). The gasket of Figure 8 is formed of a sequence

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of 4 layers of graphite foils, and 3 layers of metal foils (COL 8, lines 32-37). Disclosed is the use of mica for making the core of the gasket body (COL 4, lines 14-17). It is noted that given that the sealing gasket body is in direct contact with other outer members, the spaces adjacent thereto are effectively sealed by the outer members which are made of at least a melt-forming material. Additionally, given that the sealing portion is made of at least mica, such a gasket for sealing is capable of achieving the specifically claimed leak rates. Thus, that is an inherent property or characteristic thereof because product of identical chemical composition cannot have mutually exclusive properties.



As to claim 12:

Disclosed is the use of mica for making the core of the gasket body (COL 4, lines 14-17).

As to claim 13:

The gasket includes 3 layers of metal foils (COL 8, lines 32-37).

Therefore, the present claims are anticipated.

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Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 18. Claims 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over: a) the UK patent Application GB 2312479 (heretofore "the GB'479") and/or b) Ottinger et al 6565099 as applied to claim 10 above, and further in view of Meinhardt et al 6532769.

The GB'479 and/or Ottinger et al are applied, argued and incorporated herein for the reasons above. However, the preceding prior art references do not expressly disclose the specific sealing member composition.

Meinhardt et al disclose glass-ceramic joint and method of joining (TITLE). Specifically, disclosed is a glass-ceramic material which is a blend of M1-M2-M3 wherein M1 is BaO, SrO, CaO, MgO or combination thereof; M2 is Al2O3, present therein in an amount from 2-15 mol %, and M3 is SiO2 with up to 50 mol % B2O3, and that blend substantially matches a coefficient of

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thermal expansion of its application (ABSTRACT). Additionally, <u>FIGURE 1</u> shows suitable compositional ranges of M1-M2-M3. Such a compositional blend for sealing purposes can be used in applications wherein the temperature ranges from 650-800°C (COL 4, line 5-10). It is noted that the blend composition of Meinhardt et al meet the requirement of being a G-18 glass.

In light of these disclosures, it would have been obvious to a person possessing a level of ordinary skill in the field of invention to use the specific sealing member composition of Meinhardt et al in the sealing gasket of the GB'479 and/or Ottinger et al as Meinhardt et al disclose that such a specific sealing member composition typically has a higher chemical resistance, show minimal interaction with component materials of its sealing application and has satisfactory thermal expansion for sealing application, has good corrosion characteristics, and tend to be stronger mechanically at operating temperature, thereby improving seal performance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (571) 272-1282. The examiner can normally be reached on Monday-Thursday (8:00 am - 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raymond Alejandro Primary Examiner

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